



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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May 19, 2014, Corrected June 10, 2014

Mr. Mark H. Woelfel
Alpha Analytical, Inc.
8 Walkup Drive
Westborough, MA 01581

RE: Westborough
Transmittal No.: X256550
Application No.: CE-13-022
Class: SM-50
FMF No.: 178625
AIR QUALITY PLAN APPROVAL

Dear Mr. Woelfel:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Waste Prevention, has reviewed your non-major Comprehensive Plan Application ("Application") listed above. This Application concerns the proposed use of solvents and the combustion of natural gas at your analytical laboratory facility located at 8 Walkup Drive in Westborough, Massachusetts ("Facility"). The Application bears the seal and signature of David M. Cotter, Massachusetts Registered Professional Engineer number 49068.

This Application was submitted as required by Administrative Consent Order No. ACO-SE-13-9001Aht, dated June 27, 2013, and in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control," regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-J, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator ("Permittee") must comply in order for the Facility to be operated in compliance with this Plan Approval.

1. DESCRIPTION OF FACILITY AND APPLICATION

Alpha Analytical Inc. (Alpha) operates an existing laboratory (“Facility”), which consists of a series of specialized analytical laboratories for the analysis of gaseous, liquid, soil, and solid environmental samples. In this application, Alpha proposes to operate the existing laboratories, establishing federally enforceable operational limitations.

Emission Unit #1 consists of a single laboratory room which includes the Organic Prep Laboratory (OPL), the Metals Prep Laboratory, and glassware cleaning. In this single laboratory room, environmental samples are extracted using EPA Analytical Methods such as 625 and 8270. The EPA methods use solvents, averaging about 140 milliliters, including methylene chloride (a.k.a. “dichloromethane” or “DCM”), ethyl ether, acetone, or hexane, to extract the compounds for analysis from the environmental samples. The extracted samples are transferred into specific system evaporation tubes and then placed into Solvent Vapor Recovery systems with integrated controls (SVR-N) for concentration. These concentration systems are designed with internal heaters, a vacuum pump and a refrigerated recirculating chiller. The evaporation tubes are designed with a nipple at the bottom where the final concentrated sample is collected. The tubes, after being placed in the concentration system, are sealed under vacuum. Heat is then applied and the vacuum slowly increased. The increase in vacuum causes the solvent boiling point to decrease and the solvent to be transferred into the vapor phase. The vacuum draws the solvent vapor out of the evaporation tube and into the distillation chamber where it is cooled and the solvent vapor transferred back into the liquid phase. The recovered liquid solvent is collected into the solvent recovery chamber. The final sample extract is concentrated to about one milliliter in volume. The exhaust from the SVR-N system vacuum pump is vented to a hood. The final sample extract is transferred to a two milliliter auto sampler vial, capped and is now ready for analysis. The Metals Prep Laboratory does not use organic solvents. The emissions from glassware washing are calculated separately from SVR-N operations.

Emission Unit #2 is the Wet Chemistry Laboratory (WCL) which performs extractions on oil and grease samples. Using methods such as EPA Analytical Methods 1664 and 9071, up to 100 milliliters of solvents are used to extract environmental samples. Hexane is the largest single solvent and Hazardous Air Pollutant (HAP) used in and emitted from the WCL.

The Permittee operates external combustion sources, currently consisting of eighteen natural gas fired HVAC units. Each HVAC unit has a maximum heat input rate of less than 10 million Btu per hour (MMBtu /hr), and aggregate of all units <10 million British Thermal Units per hour. In accordance with MassDEP Regulations at 310 CMR 7.02(2)(b)15.a., combustion sources with a maximum heat input of less than 10 MMBtu/hr per unit are not subject to (i.e. are exempt from) plan application filing and approval requirements. Alpha will also operate a natural gas fired emergency generator rated at 125 kilowatts, which is subject to the Industry Performance Standards at 310 CMR 7.26(42). A certification has been submitted as required by the Environmental Results Program (ERP) Certification Regulations at 310 CMR 70.00. The emissions from all fuel burning equipment, including the exempt units and the emergency generator, are quantified in this Plan Approval as part of the Facility-wide emission limits.

Emissions from all fuel burning equipment are based on 8,760 hours of operation per year, with exception of the emissions from the emergency generator, which are based on 300 hours of operation per year.

The Facility may be subject to the Federal New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines (40 CFR Part 60 Subpart JJJJ). Since MassDEP has not accepted delegation for Subpart JJJJ for non-major area sources, you are advised to consult with the United States Environmental Protection Agency (US EPA) for additional information. There may be additional notification, record keeping and reporting requirements. Their address is US EPA Region 1, 5 Post Office Square – Suite 100, Boston, MA 02109-3912.

The facility consists of four other laboratories: Volatile Organic Compound Instrumentation, Semi-Volatile Organic Compound Instrumentation, Metals Instrumentation, and Microbiology. These laboratories use solvents in such a way where the use does not produce evaporative emissions (e.g., transferred from sealed container to sealed container, or the solvent is destroyed in the analytical process). These four other laboratories are not regulated in this Plan Approval.

Best Available Control Technology (BACT) for the OPL will be achieved by using SVR-N to obtain the demonstrated collection efficiency of 100% and removal efficiency of 95% as contained in Table 2 of this Plan Approval. BACT for glassware cleaning will be achieved by using work practices and glassware cleaning training in accordance with Table 6 of this Plan Approval by limiting evaporation loss to 10%.

Alpha has an obligation to maintain appropriate records and perform any necessary reporting as required by MassDEP Regulations at 310 CMR 7.02(2)(e) and (f) to maintain compliance with the respective exempt statuses. Emissions from the exempt activities are included in the Facility's emission totals.

Installation of the SVR-N Pollution Control Devices (PCDs) and the installation of the higher exhaust stacks will take place in the timeframe outlined in Table 6.

In the event that four or more of the approved SVR-N PCDs could be inoperable at any one time, the Permittee has requested the operational flexibility to use alternative control equipment. MassDEP, in allowing for operational flexibility, has taken into account the following: substantial cost to purchase, install, and operate the SVR-Ns; the highly specialized and custom nature of this laboratory-grade equipment, the manufacturer's developing support network, and the availability of reserve Solvent Vapor Recovery (SVR) equipment, in use at the Facility at the time of this Plan Application. An SVR is similar to an SVR-N, but without the vacuum, internal heaters, optimized gas sparge system, integrated controls, and other features designed to increase the recovery efficiency. When combined with a Nitrogen Evaporation System (N-EVAP), approximately 14 milliliters of solvent vapors are not condensed, resulting in a removal efficiency of 93%. To replace the functionality of four inoperable SVR-Ns, the Permittee may substitute two SVR units with glassware condensers, and one N-EVAP. Table 6 allows for the

installation and operation of two SVRs and one N-EVAP in exchange for one SVR-N for up to 30 calendar days. Excessive inoperable SVR-Ns, as defined in Table 6 of this Plan Approval, will make the Facility ineligible to exercise operational flexibility period provisions.

The Permittee has demonstrated that the operation of the SVR / N-EVAP equipment (93% collection efficiency) during this period of operational flexibility will not result in exceeding the Allowable Ambient Air Limit (AAL) and Threshold Emission Limit (TEL) values for DCM currently in effect. During this period of operational flexibility, the Permittee remains subject to all operational, production, and emission limits contained in Table 2, and the conditions contained in Table 6 of this Plan Approval.

MassDEP has reviewed the air quality dispersion modeling report that was included as part of Application CE-13-022. The AERMOD air quality dispersion modeling report demonstrates that the emission units, when operated in accordance with this Plan Approval, will not cause an exceedance of the AAL and TEL values for DCM currently in effect.

2. EMISSION UNIT (EU) IDENTIFICATION

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1			
EU#	Description	Design Capacity	Pollution Control Device (PCD)
1	Organic Prep Laboratory (OPL) ¹	n/a	SVR-N, SVR / N-EVAP, Chiller
2	Wet Chemistry Laboratory (WCL)	n/a	none

Table 1 Key:

EU# = Emission Unit Number

PCD = Pollution Control Device

OPL = Organic Prep Laboratory

SVR-N = Solvent Vapor Recovery System with integrated controls

SVR = Solvent Vapor Recovery System

N-EVAP = Nitrogen Evaporation System

WCL = Wet Chemistry Laboratory

< = less than

Notes:

1. Includes the Metals Prep Laboratory, and glassware cleaning operations which are both physically located within the OPL.

3. APPLICABLE REQUIREMENTS

A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2 below:

Table 2			
EU#	Operational / Production Limit	Air Contaminant	Emission Limit
1	1. $\leq 8,140$ liters of HAP (single) per month for sample processing and glassware cleaning operations combined (EU#1 total).	HAP (single) ¹	0.74 TPM
	2. $\leq 40,700$ liters of HAP (single) per consecutive 12-month period for sample processing and glassware cleaning operations combined (EU#1 total).	(EU#1 total)	3.71 TPY
	3. $\leq 2,500$ liters of HAP (single) per month for glassware washing operations only. ⁴	HAPs (total)	0.82 TPM
	4. $\leq 12,500$ liters of HAP (single) per consecutive 12-month period for glassware washing operations only. ⁴		4.08 TPY
	5. $\leq 10,000$ liters of HAPs (total) per month.	VOC	0.09 TPM
	6. $\leq 50,000$ liters of HAPs (total) per consecutive 12-month period.		0.45 TPY
	7. $\leq 2,300$ liters of VOC per month.	Acetone	0.20 TPM
	8. $\leq 11,500$ liters of VOC per consecutive 12-month period.		1.01 TPY
	9. $\leq 2,680$ liters of acetone per month.		
	10. $\leq 13,400$ liters of acetone per consecutive 12-month period.		
	11. SVR-N collection efficiency = 100%. ^{2, 5}		
	12. SVR-N removal efficiency $\geq 95\%$. ^{2, 5}		
	13. Water chiller temperature maintained ≥ 4 and $\leq 25^{\circ}\text{C}$.		
2	14. ≤ 40 soil analyses per month.	HAPs (total)	0.12 TPM
	15. ≤ 200 soil analyses per consecutive 12-month period.		0.60 TPY
	16. $\leq 2,302$ liquid analyses per month.	VOC	0.12 TPM
	17. $\leq 11,511$ liquid analyses per consecutive 12-month period.		0.60 TPY
		Acetone	0.01 TPM
Facility-wide ³		Opacity	0%
		HAP (single) ¹	3.71 TPY ⁶
		HAPs (total)	4.72 TPY
		VOC	1.15 TPY
		PM	0.10 TPY
		CO	1.17 TPY
		NO _x	2.32 TPY
		Acetone	1.02 TPY

Table 2 Key:

EU# = Emission Unit Number
DCM = methylene chloride
SVR-N = Solvent Vapor Recovery System with integrated controls
NO_x = Nitrogen Oxides
CO = Carbon Monoxide
VOC = Volatile Organic Compounds
PM = Total Particulate Matter
HAP = Hazardous Air Pollutant
HAP (single) = maximum single Hazardous Air Pollutant
HAPs (total) = total Hazardous Air Pollutants
TPM = tons per month
TPY = tons per consecutive 12-month period
≥ = Greater than or equal to
≤ = Equal to or less than
% = percent
°C = degrees Centigrade
HVAC = Heating, Ventilation, and Air Conditioning
SVR = Solvent Vapor Recovery System

Notes:

1. The single largest HAP is DCM.
2. Applies to HAP (single), HAPs (total), VOC, and acetone air contaminants.
3. Facility-wide HAP limits include all fuel combustion operations. Natural gas shall be the exclusive fuel of use. HVAC emission calculations based on 8,760 hours of operation per consecutive 12-month period. Emergency generator emission calculations based on 300 hours of operation per consecutive 12-month period.
4. Glassware washing operation limits based on 40 milliliters of maximum single HAP used per sample analyzed. Glassware cleaning operation emission calculations based on a 10% evaporative loss factor.
5. During periods of operational flexibility SVR collection efficiency = 100%, and SVR removal efficiency ≥ 93%, as contained in Table 6 of this Plan Approval.
6. During the 140 day interim period, the Facility is limited to 1,445 pounds per month of HAP (single) until all twelve (12) SVR-Ns are installed and achieve operational status. See Provisos 2. and 3. contained in Table 6 of this Plan Approval.

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5 below:

Table 3	
EU#	Monitoring and Testing Requirements
1	<ol style="list-style-type: none"> 1. The Permittee shall perform solvent recovery testing on each SVR-N Pollution Control Device once per calendar month to demonstrate compliance with the removal efficiency contained in Table 2 of this Plan Approval. The Permittee shall conduct the solvent recovery test in accordance with the Standard Operating Procedures contained in Attachment D, of Appendix 4 of the Approved Application. After one year, the Permittee may propose a reduction of the test frequency after consulting with MassDEP.

Table 3	
EU#	Monitoring and Testing Requirements
	2. When the Permittee begins an operational flexibility period (as defined in Proviso 4 contained in Table 6 of this Plan Approval), the Permittee shall perform solvent recovery testing on each SVR-N and SVR Pollution Control Device once per calendar month to demonstrate compliance with the removal efficiencies contained in Table 2 and Table 6 of this Plan Approval.
	3. The Permittee shall monitor the temperature of the refrigerated recirculating chiller solution at all times while solvent recovery operations are being conducted to demonstrate compliance with the operational limit contained in Table 2 of this Plan Approval.
	4. The Permittee shall continuously monitor the refrigerated recirculating chiller to ensure it pumps fluid at all times while solvent recovery operations are being conducted.
Facility-wide	5. The Permittee shall monitor material usage and record the number of samples analyzed such that compliance with the operational, production, and emission limits contained in Table 2 of this Plan Approval can be determined.
	6. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	7. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13.

Table 3 Key:

EU# = Emission Unit Number

SVR-N = Solvent Vapor Recovery system with integrated controls

SVR = Solvent Vapor Recovery system

USEPA = United States Environmental Protection Agency

MassDEP = Massachusetts Department of Environmental Protection

CMR = Code of Massachusetts Regulations

Table 4	
EU#	Record Keeping Requirements
1	1. The Permittee shall maintain records for solvent recovery testing as required by Table 3.
	2. The Permittee shall maintain operational flexibility period records, such as, but not limited to: the start date, the end date, the reason(s) for invoking the period operational flexibility, the amount DCM used during this period, the DCM emissions during this period, the corrective actions taken, and the action plan to prevent additional periods of SVR-N inoperability.
	3. The Permittee shall maintain records of all periods of SVR-N inoperability.

Table 4	
EU#	Record Keeping Requirements
Facility-wide	4. The Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve month period (current month plus prior eleven months). These records shall be compiled no later than the 15 th day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at http://www.mass.gov/dep/air/approvals/aqforms.htm#report .
	5. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	6. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU(s) and PCD(s) approved herein on-site.
	7. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), PCD(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	8. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s) and PCD(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
	9. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	10. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	11. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.
	12. The Permittee shall maintain training records for glassware cleaning using DCM, conducted as required by Table 6 of this Plan Approval.

Table 4 Key:

EU# = Emission Unit Number

PCD = Pollution Control Device

SOMP = Standard Operating and Maintenance Procedure

USEPA = United States Environmental Protection Agency

MassDEP = Massachusetts Department of Environmental Protection

CMR = Code of Massachusetts Regulations

SVR-N = Solvent Vapor Recovery system with integrated controls

DCM = methylene chloride

Table 5	
EU#	Reporting Requirements
1	1. The Permittee shall notify the Central Regional Office of MassDEP, BWP Permit Chief by telephone 508-767-2845, email: zero.air@state.ma.us or fax: 508-792-7621, as soon as possible, but no later than one (1) business day upon the beginning of an operational flexibility period as contained in Table 6 of this Plan Approval.
	2. The Permittee shall notify Central Regional Office of MassDEP, BWP Permit Chief of the date the operational flexibility period approved herein is concluded. A written report shall be submitted to BWP Permit Chief at MassDEP within three (3) business days thereafter and shall include: start date of operational flexibility, end date of operational flexibility, the reason(s) for invoking the period operational flexibility, the amount DCM used during this period, the DCM emissions during this period, the corrective actions taken, and the action plan to prevent additional periods of SVR-N inoperability.
Facility-wide	3. The Permittee shall notify MassDEP in writing of the date the equipment approved herein (including, but not limited to the SVR-Ns and exhaust stacks) is installed and is deemed operational, within 5 business days thereof.
	4. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	5. The Permittee shall notify the Central Regional Office of MassDEP, BWP Permit Chief by telephone 508-767-2845, email zero.air@state.ma.us or fax: 508-792-7621, as soon as possible, but no later than three (3) business days after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to BWP Permit Chief at MassDEP within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	6. The Permittee shall report every three years to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.
	7. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30-days from MassDEP's request.
	8. The Permittee shall submit to MassDEP for approval a stack emission pretest protocol, at least 30 days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements. This Proviso does not apply to the solvent recovery testing described in Proviso 1. contained in Table 3 of this Plan Approval. This Proviso is associated with Proviso 7. contained in Table 3 of this Plan Approval.
	9. The Permittee shall submit to MassDEP a final stack emission test results report, within 45 days after emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements. This Proviso does not apply to the solvent recovery testing described in Proviso 1. contained in Table 3 of this Plan Approval. This Proviso is associated with Proviso 7. contained in Table 3 of this Plan Approval.

Table 5 Key:

EU# = Emission Unit Number

DCM = methylene chloride

MassDEP = Massachusetts Department of Environmental Protection

4. **SPECIAL TERMS AND CONDITIONS**

The Permittee is subject to, and shall comply with, the following special terms and conditions:

- A. The Permittee shall comply with the Special Terms and Conditions as contained in Table 6 below:

Table 6	
EU#	Special Terms and Conditions
1	1. The Permittee shall ensure that all PCDs approved herein (SVR-N, SVR / N-EVAP, and chillers) are operating at all times when sample extraction operations are being performed.
	2. The Permittee has indicated that it will take up to 20 weeks to procure and achieve operational status for the twelve approved SVR-N PCDs, and has proposed an interim DCM emission restriction during this period. MassDEP, in allowing for an interim DCM emission limit, has taken into account the following: substantial cost to purchase and install the SVR-Ns; the highly specialized and custom nature of this laboratory-grade equipment being made to order; and the manufacturer's developing support network. The Permittee shall limit DCM emissions during this interim period as required by Note 6. contained in Table 2 of this Plan Approval.
	3. The Permittee shall install and operate twelve SVR-N PCDs approved herein within 140 calendar days from the date of this Plan Approval.
	4. In the event four SVR-N units are inoperable, the Permittee may substitute, install, and operate two Solvent Vapor Recovery (SVR) units and one N-EVAP unit, for an operational flexibility period not to exceed 30 calendar days ¹ . Emissions shall be calculated using collection and removal efficiencies as follows: <div style="text-align: center;">SVR collection efficiency = 100%. SVR removal efficiency \geq 93% ²</div> Additional testing and reporting requirements apply. See Proviso 2 contained in Table 3, and Proviso 2 contained in Table 5 of this Approval.
	5. During periods of operational flexibility, the Permittee shall not operate more than eight SVR-Ns, two SVRs, and one N-EVAP units at any one time.
	6. During periods of operational flexibility, the Permittee shall remain subject to all operational, production, and emission limits contained in Table 2 of this Plan Approval. The Permittee shall report periods of operational flexibility to MassDEP in accordance with Table 5.
	7. In the event four (4) or more SVR-Ns become inoperable and are not repaired / replaced within any sixty (60) rolling day period, the Facility shall become ineligible to exercise operational flexibility period

Table 6	
EU#	Special Terms and Conditions
	provisos until MassDEP determines inoperable SVR-Ns are have been repaired / replaced, and are operational.
Facility-wide	8. The Permittee shall comply with the following work practices: a. The use of solvent containers that minimize solvent losses. b. The use of solvent containers that avoid excessive transferring or pouring of solvents. c. At all times, covering the solvent containers, including waste collection containers, except when materials are being added or removed from the container. d. Conduct glassware cleaning training (using DCM) for all existing laboratory personnel within 60 days and within 30 days for new laboratory personnel using the training outline contained in Attachment D of the Application.
	9. The Permittee shall install and operate the exhaust stacks (as contained in Table 7 of this Plan Approval) within 140 calendar days from the date of this Plan Approval.
	10. The Permittee shall not exceed a facility-wide DCM emission limit of 1,445 pounds per month until the twelve (12) herein approved SVR-N PCDs achieve operational status.
	11. The Permittee shall remain subject to all TPY emission limits established in Table 2 of this Plan Approval.

Table 6 Key:

EU# = Emission Unit Number

PCD = Pollution Control Device

DCM = Methylene Chloride

SVR-N = Solvent Vapor Recovery with integrated controls

SVR = Solvent Vapor Recovery System

TPY = tons per consecutive 12-month period

n/a = not applicable

N-EVAP = Nitrogen Evaporation System

≥ = Greater than or equal to

% = Percent

MassDEP = Massachusetts Department of Environmental Protection

Notes:

1. SVR-N and SVR units are different and distinct from each other.
2. Applies to HAP (single), HAPs (total), VOC, and acetone air contaminants.

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including but not

limited to rain protection devices known as “shanty caps” and “egg beaters.” The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7 below, for the Emission Units that are regulated by this Plan Approval:

Table 7				
EU#	Stack Height Above Ground (feet)	Stack Inside Exit Dimensions (feet)	Stack Gas Exit Velocity Range (feet per second)	Stack Gas Exit Temperature Range (°F)
1 (EF-2)	55	1	84.8	75
1 (EF-3)	55	1	106.0	75
1 (EF-5)	55	1	78.4	75
1 (EF-13)	60	0.58	95.4	75
1 (EF-4)	55	1	62.4	75

Table 7 Key:

EU# = Emission Unit Number

EF = Exhaust Fan

°F = Degree Fahrenheit

5. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose

of making inspections and surveys, collecting samples, obtaining data, and reviewing records.

- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.
- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain "Fail-Safe Provisions," which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

7. APPEAL PROCESS

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Roseanna Stanley by telephone at 508-767-2845 or in writing at the MassDEP's Central Regional Office.

This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
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Thomas Cushing
Permit Chief, Southeast Region
Bureau of Waste Prevention

Enclosure

cc: Westborough Board of Health
Westborough Fire Department
MassDEP/Boston – Y. Tian
MassDEP/CERO – R. Stanley
MassDEP/SERO – M. Pinaud
MassDEP/SERO – L. Black
MassDEP/SERO – D. d'Hedouville

Alpha Analytical, Inc. - Westborough
May 19, 2014, Corrected June 10, 2014 - Plan Approval
Transmittal No. X256550
Application No. CE-13-022
Page 15 of 15

TRC Environmental Corporation – D. Cotter
Office of Attorney General – F. Augenstein